Three hundred and forty-ninth meeting.

August 13, 1851. — QUARTERLY MEETING.

The PRESIDENT in the chair.

The Corresponding Secretary laid before the Academy a letter of acceptance from Professor Carl Rokitansky, of Vienna.

The following gentlemen were elected Fellows of the Academy : —

Professor John H. C. Coffin, of Washington;

Waldo J. Burnett, M. D., of Boston;

Nathaniel B. Shurtleff, M. D., of Boston.

Professor Agassiz exhibited some specimens of a new type of Echinoderms; one of Holothuridæ of the genus Orcula, discovered on the coast of Maine, near Eastport, which he called *Orcula punctata;* one of the genus Synapta, which he called *Synapta coriacea;* a gigantic Holothuria from Florida, which he called *Holothuria heros;* and a new species of Ophiura, from Eastport, which he called *Ophiura acufera.*

Three hundred and fiftieth meeting.

October 7, 1851. — MONTHLY MEETING.

The PRESIDENT in the chair.

On motion of Professor Peirce, it was

"*Voted*, That every communication to the Academy shall, before being made, be entered by its title in a book to be kept by the Recording Secretary for that purpose, and numbered at the discretion of its author, with any number not previously appropriated.

"*Voted*, That communications shall be made to the Academy in the order of their numbers.

"*Voted*, That members shall be requested to note the time their communications will probably require."

After some introductory remarks by Professor Peirce, Mr. Blasius communicated to the Academy the results of a very laborious investigation and analysis of the phenomena of the late destructive tornado in the eastern part of Middlesex Coun-

ty. He had discovered, in the track of the tornado, a series of points of greatest destruction, which succeeded each other at constantly increasing distances. He endeavored to account for the ascertained facts, by referring them to the collision of a northwest and a southwest wind, of which he thought there was satisfactory evidence.

Dr. A. A. Gould stated some additional observations made by him at the time of the occurrence of the tornado.

Mr. Guyot, who had examined a part of the track of the tornado with Mr. Blasius, testified to the accuracy of his observations, but did not coincide with him in his theoretical views.

Professor Peirce thought that some of the phenomena of the tornado were incompatible both with Espy's and with Redfield's theory of storms, and offered some objections to the explanations of Mr. Blasius.

Three hundred and fifty-first meeting.

November 4, 1851. — MONTHLY MEETING.

The PRESIDENT in the chair.

Professor Agassiz gave an account of two families of fishes not before observed in the United States, the Myxinoids and the Erythrinoids, and described a new genus, Phyllobranchus.

Professor Agassiz also communicated some new views in regard to the geological position of the coal at Mansfield, Massachusetts, which led to an animated discussion, in which Mr. Bouvé, Dr. C. T. Jackson, and Professor Horsford took part. He advanced the opinion, that the slate rocks at Nahant are metamorphosed shales of the Mansfield coal formation; that the sienite which overlies them is not the cause of the metamorphic change, and is not an intruded rock, but is itself a metamorphic sandstone of the coal period.

Mr. Bouvé remarked, that, if these views were correct, heat must have been transmitted through the coal-bearing rocks sufficient to melt down and render liquid or semi-liquid the